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CHAT – a study of a nurse-led system of care

By Julie Yallop, Robyn Clark, Bianca Chan, Joanne Croucher, Alison Wilson, Ben Sellar, Leon Piterman, Andrew Tonkin and Henry Krum

The burden of chronic disease such as chronic heart failure (CHF) is expected to increase with Australia's ageing population (McMurray et al 2000). By placing growing demands on the health system's limited resources, chronic diseases will only heighten the call for skilled nurses and aged care services. Given existing workforce and skill shortages, considerable concerns surround our ability to meet this future need (AMWAC 2005).

International experience and evidence indicate a number of promising benefits for multidisciplinary health care delivery models involving nurses, such as telenursing (McAlister 2004). A key advantage is their potential to provide quality health care while also addressing equity issues in the provision of services. Evidence shows that many Australian patients have limited access to formal CHF management programs, particularly those in rural and remote areas (Clark et al 2005).

The Chronic Heart-failure Assistance by Telephone (CHAT) study tests a multidisciplinary, nurse-coordinated health care system approach involving telephone support for vulnerable patients with chronic disease. This innovative system of care incorporates evidence-based principles via an interactive and semi-automated telephone-based (telemedicine) delivery system. It enables a limited resource of health care providers, namely nurses in triage with general practitioners (GPs), to monitor symptoms and support a larger than usual caseload of CHF patients.

A cluster-randomised trial, the CHAT study is currently engaging general practitioners in recruiting a sample of 534 patients. While all patients continue to receive

usual care, half also receive the intervention package delivered via the telenursing program. The primary outcome for this study is a clinical composite measure that incorporates important clinical events as well as patients' global assessment (Packer 2001). Quality of life, total hospitalised days and the proportion of patients on target doses of angiotensin inhibiting enzyme (ACE inhibitors), are among the secondary outcomes which are also being assessed.

The overall aim of the intervention program is to deliver services to patients and their families that are accessible from the home, thereby supporting the patient to maintain their health in as stable a manner as possible. To achieve this aim CHAT nurses initiate behaviour modification and teach self-management strategies to CHF patients. They also closely monitor symptoms and help to manage patient weight and medications. Patients are educated to recognise and understand their signs and symptoms, and encouraged to seek early intervention at an appropriate level when required. An important feature of the CHAT study model is that the calls are largely patient-initiated, a feature which could potentially result in the greatest care being directed to those in greatest need. The CHAT nurses – who are currently located in the National Heart Foundation of Australia's call centre, Heartline – act in partnership with the patient's own GP to enhance and support GP care plans.

Telenursing has the potential to:

- deliver quality care for the health and wellbeing of Australians,
- address access barriers,
- reduce the demands on overburdened GPs,



CHAT nurses (left to right) Alison Wilson, Sabine Drilling, Anne Flinn and Robyn Clark.

- support physicians in the provision of quality care, and

- provide an innovative career path for registered nurses who are looking to work outside the acute care system.

The clinical implications of this study are likely to be far-reaching. The CHAT study represents a potentially cost-effective and accessible model for the Australian health system in caring for CHF patients in rural and remote areas. Moreover, it is also a system of care that could be readily adapted for a range of chronic diseases.

About the authors

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